

Amendments to the Drawings:

The attached replacement sheets of drawings include changes to Figures 1, 3 and 4.

In Figure 1, the text has been removed. The missing numeral "140" has been added to Figure 3. The new Figure 4 clearly shows each illustrated feature.

Attachments following last page of this Amendment:

Replacement Sheets (3 pages)

REMARKS

Reconsideration and allowance of the application as amended above are respectfully requested.

The abstract has been amended to overcome the objection thereto. No new matter is added.

The specification has been amended to include textual descriptions for Figures 6A, 6B, and 7. No new matter is added. Hence, the objection to the specification has been overcome.

The drawings for Figures 1, 3 and 4 have been amended to overcome the objections. Each change does not add new matter.

Claims 1-16 and 18-21 stand rejected under 35 USC 112, second paragraph as being indefinite. Claims 1, 4, 5, 7, 9, 14, 15, and 19-21 have been amended to overcome the rejections. The details of such amendments are as follows.

Claim 1 has been amended to recite "a mask with openings" as illustrated in Figure 1 and to delete the rejected language "scattering element."

Claim 4 has been amended to be more specific on the nature of the signal.

Claim 5 has been amended to remove the rejected language.

Claim 7 has been amended to clarify the term "each side."

Claim 9 has been amended to delete "on said first surface" for the second diffractive element.

Claim 14 has been amended to delete the language "from a top of said housing" for the recited laser diode.

Claim 15 has been amended to clarify that the first optical element receives said laser beam from "said laser diode" and to correct a typographical error that caused the rejection.

Claim 19 has been amended to replace the recited "a photodiode" with "laser light."

Claim 20 has been amended to specify extracting shear stress information from the interference. The Patent Office questions how the shear stress is determined. Claim 20 specifically states that the shear stress is extracted from the interference. This specific information on the extraction is well known to the public. Hence, Claim 20 as amended, without specifically reciting how the extraction is performed, is sufficiently clear and definite under 35 USC 112, second paragraph.

Claim 21 has been amended to clarify that an additional laser beam is directed to the particles to detect a size of the particles. Such optical sizing of particles is well known to the public and the language in the amended Claim 21 is sufficiently definite under 35 USC 112, second paragraph.

In view of the above, Claims 1-16 and 18-21 are definite under 35 USC 112, second paragraph and are patentable.

Claim 19 further stands rejected under 35 USC 112, second paragraph, as being incomplete for omitting certain structures such as a laser, a transparent substrate, diffractive elements, and photodiode for collecting light (page 4 of the office action). Applicants respectfully traverse.

Claim 19 is a method claim. As such, specific steps for illuminating the particles and detecting the interference are recited to particularly point out and distinctly claim the method. Different from apparatus claims where structural elements are recited to define the apparatus, a method claim recites specific steps to be performed in the claimed method. Claim 19 particularly points out and distinctly defines a method with an illuminating step and a detecting step in detecting particle flow. Therefore, Claim 19 does not omit essential steps for the claimed method and thus is patentable.

Finally, the Patent Office cites Claims 45 and 47 of another commonly owned patent No. 6,717,172 to reject Claims 3, 4, 9, 14, 15, and 19-21 under the judicially created doctrine of obviousness-type double patenting. These rejections have been obviated by concurrently filing a terminal disclaimer with this response as suggested by the Patent Office.

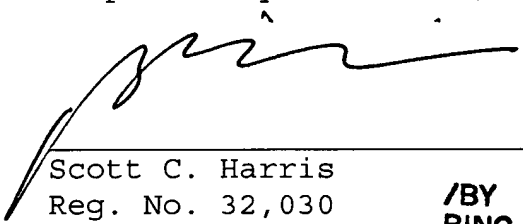
In summary, all objections and rejections have been overcome or obviated. Therefore, Claims 1-16 and 18-21 are patentable and are in condition for allowance.

Claims 22-25 are dependent on the base claim 19. Since Claim 19 is patentable and allowable, Claims 22-25 should be patentable and allowable accordingly.

Enclosed is a \$545 check for the Terminal Disclaimer and the Petition for Extension of Time fee. Please apply any other applicable charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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